

Economic Benefits of Recycling

Recycling, the process of collecting and processing materials that would otherwise be thrown away as trash and turning them into new products, plays an important role in our state and national economy. Recycling not only creates jobs, but also generates billions of dollars annually in economic activity.

National Level

- The United States Environmental Protection Agency (USEPA) released an update to its national Recycling Economic Information (REI) report in October, 2016. The report aims to increase the understanding of the economic implications of material reuse and recycling and is available at https://www.epa.gov/sites/production/files/2016-11/documents/final_2016_rei_report.pdf. This study analyzes the numbers of jobs, wages and tax revenues attributed to recycling. The report shows that recycling and reuse of materials creates jobs, while also generating local and state tax revenues. According to the REI update, recycling and reuse activities in the United States in 2007 accounted for:
 - 757,000 jobs (0.52% of the U.S. economy)
 - \$36.6 billion in wages (0.62% of the U.S. economy)
 - \$6.7 billion in tax revenues (0.90% of the U.S. economy)
- The REI report found that on a national average, there are “1.57 jobs, \$76,030 in wages and \$14,101 in tax revenues” for every 1,000 (US) tons of recyclables collected and recycled. Construction and demolition materials recycling provided the largest contribution to all three categories considered (job, wage and tax revenue), followed by ferrous metals, and non-ferrous metals (aluminum).
- The U.S. scrap recycling industry is similar in size to the data processing and hosting industry, the dental industry, and the automotive repair industry. (Institute of Scrap Recycling Industries - Economic Impact Study: U.S.- Based Scrap Recycling Industry 2015)

State Level - New Jersey

- In New Jersey, the recycling and reuse industry employs approximately 27,000 people. (U.S. Recycling Economic Information Study Prepared for The National Recycling Coalition by R. W. Beck, Inc., 2001)
- The recycling and reuse industry adds almost \$6 billion annually to the New Jersey state economy. (U.S. Recycling Economic Information Study Prepared for The National Recycling Coalition by R. W. Beck, Inc., 2001)

- New Jersey's well-developed recycling industry includes transporters, specialized processing facilities and manufacturers of various recycled products.
- New Jersey's recycling infrastructure includes 17 intermediate processing facilities for Class A recyclable materials (glass bottles, metal cans, plastic containers, paper grades), over 100 NJDEP-approved recycling centers for Class B recyclable materials (concrete rubble, asphalt debris, wood scrap, scrap tires), and dozens of industrial facilities including steel mills, foundries and paper mills.

Reduced Energy Costs

The use of recycled material feedstocks (rather than virgin materials) in the production of new products saves energy, which in turn reduces energy costs for manufacturers.

- Energy costs drop about 2-3% for every 10% recycled glass cullet used in the manufacturing process. (Recycled glass can be substituted for up to 95% of raw materials.) Glass Packaging Institute
- "Less energy is required when converting recycled PET to a virgin equivalent, whether flake or pellet" (National Association for PET Container Resources) and this results in significant energy cost savings for plastic product manufacturers.
- "Recycling steel requires 56 percent less energy than producing steel from iron ore" (Institute of Scrap Recycling Industries) and this results in significant energy cost savings for steel manufacturers.

Reduced Disposal Costs and Potential for Revenue from Recycling

Businesses and other organizations, in particular, can reduce their disposal costs and often generate revenue through a successful recycling program. Such savings are realized when the avoided cost of disposal, reductions in needed solid waste disposal services and potential revenue from the sale of recyclables are factored into the overall equation. Of course, there are some costs associated with recycling, as there are with all other day-to-day operations overseen by companies and organizations, however, generators of waste will see the economic benefits of a well-run and successful recycling program over time.

The avoided cost of disposal is the amount of money that is saved by not having to send waste to a landfill, incinerator or transfer station for disposal. It will vary depending upon the fee charged for garbage disposal at the facility in your area, but in New Jersey with such disposal fees averaging over \$80 per ton, the avoided cost of disposal can be significant. A successful recycling program will divert many tons of material away from disposal and thus the avoided cost of disposal must not be overlooked when considering the economic impact of recycling.

The establishment of a well-run recycling program may also enable businesses and other organizations to utilize smaller solid waste dumpsters and to reduce the number of solid waste pick-ups (often referred to as "pulls") made at their locale. Negotiating such changes in the level of solid waste service received with your solid waste hauler can also result in considerable

cost savings. In addition, businesses and organizations can realize economic benefits as a result of the sale of their recyclable materials. While prices for recyclable material commodities fluctuate as they do for other market commodities, generators may earn revenue from the sale of recyclable material depending upon the specific material, the extent to which it needs to be processed to make it market-ready and worldwide economic conditions.

The NJDEP report entitled "***The Economic Benefits of Recycling and Waste Reduction - WasteWise Case Studies from the Private and Public Sectors***" provides factual examples of how recycling and waste reduction makes economic sense for New Jersey's commercial, institutional and governmental sectors.

<http://www.nj.gov/dep/dshw/recycling/wastewise/njwwcasestudy.pdf>

Increased Economic Activity through Recycled Product Sales

The purchase of recycled content products is not only crucial to the success of New Jersey's many recycling programs, but also an increasingly important component of the retail sector and commerce. Recycled content products are readily available, affordable and meet the highest quality standards. Thus, they have become a valued line of consumer products for those looking to purchase environmentally-friendly ("green") products, as well as a key contributor to the economy.

Enhanced Economic Value of Natural Resources

Recycling plays an important role in protecting our air, water and land, all of which are essential and valuable natural resources. While it is difficult to quantify a monetary value for clean air, water and land, there is great economic value associated with these natural resources.

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